

Silicon NPN Power Transistor

KSD5076

DESCRIPTION

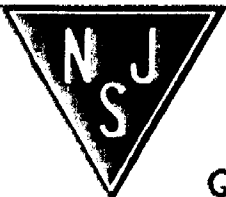
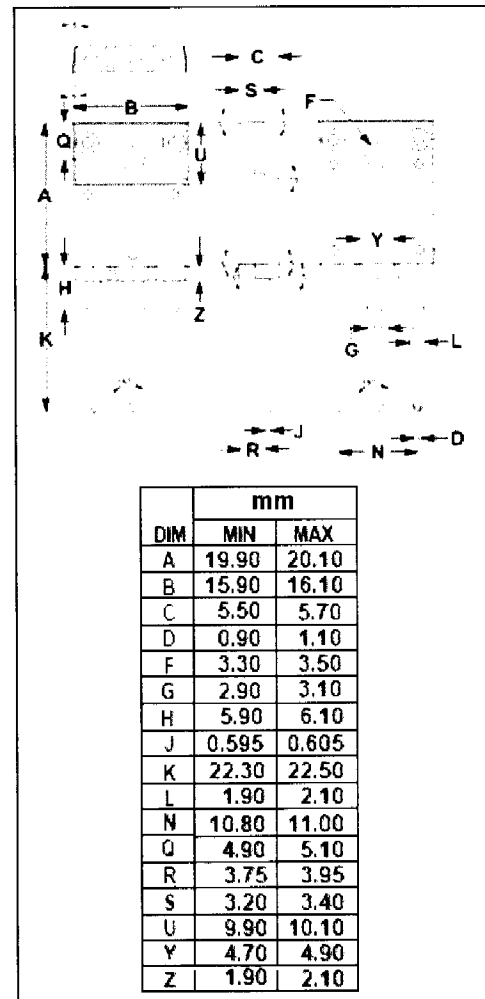
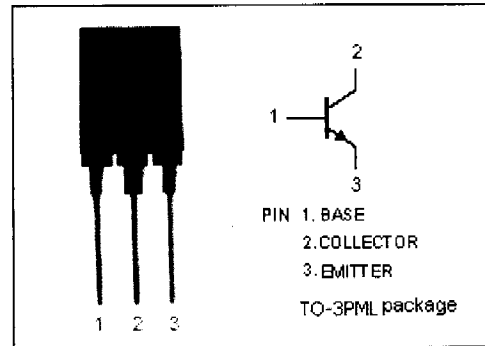
- High Breakdown Voltage-
 : $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- High Reliability

APPLICATIONS

- Designed for color TV horizontal output applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ C$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CEO} | Collector-Emitter Voltage | 800 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current- Continuous | 5 | A |
| I_{CP} | Collector Current-Peak | 16 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ C$ | 60 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ C$ |



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Silicon NPN Power Transistor

KSD5076

ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|-----|------|-----|---------------|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=4\text{A}; I_B=0.8\text{A}$ | | | 5.0 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C=4\text{A}; I_B=0.8\text{A}$ | | | 1.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=800\text{V}; I_E=0$ | | | 10 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=5\text{V}; I_C=0$ | | | 1 | mA |
| h_{FE} | DC Current Gain | $I_C=1\text{A}; V_{CE}=5\text{V}$ | 8 | | | |
| f_T | Current-Gain—Bandwidth Product | $I_C=1\text{A}; V_{CE}=10\text{V}$ | | 3 | | MHz |
| t_f | Fall Time | $I_C=4\text{A}; I_{B1}=0.8\text{A}; I_{B2}=-1.6\text{A}$ $R_L=50\ \Omega; V_{CC}=200\text{V}$ | | | 0.4 | μs |